Parental Psychopathology & Childhood Treatment Response

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The Impact of Parental Psychopathology on Treatment Outcome for Children with Mood Disorders Who Participate in Multi-Family Psychoeducational Psychotherapy (MF-PEP)

Doctoral Dissertation

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The Ohio State University

Intern, Nationwide Children’s Hospital, 2010-2011
Why This Topic for Grand Rounds?

- If you treat ADULTS
  - Their children’s functioning may impact their response to treatment
  - Their children may need referral to treatment

- If you treat CHILDREN
  - Their parents’ functioning may impact their response to treatment
  - Their parents may need referral to treatment
Goals

1. Review familial patterns of mood disorders
2. Describe impact of parental mood disorders on treatment of children with mood disorders
3. Describe impact of intervention for childhood mood disorders on parents
Familial Aggregation of Depressive Disorders - Genetic Studies

- Heritability of MDD: 31-42%  
  *Sullivan et al., 2000*

- Twice the expected prevalence of MDD in 1st degree relatives of children with MDD and in children of parents with MDD  
  *Rice et al., 2002*

- Increased heritability of early-onset depression?  
  Evidence is mixed  
  *e.g., McGuffin et al., 1996; Weissman et al., 1997*
Familial Aggregation of Bipolar Disorder—Genetic Studies

- Considered to be more heritable than depressive disorders

- Presence of 1st degree relative with BD conferred 15x greater risk for pediatric BD \textit{Pavuluri et al., 2006}

- 70\% concordance for BD in monozygotic twins \textit{Tsuang & Faraone, 1990}

- Early-onset BD more heritable
  - In a study of 13-17 yr olds w/ BD, relatives of those with child-onset were 4x more likely to have BD than relatives of those with adolescent-onset \textit{Strober et al., 1988}
Familial Aggregation of Depressive Disorders -- Environmental Factors

- Risk factors associated w/ parental depression:
  - Marital difficulties
    - ↓ marital satisfaction, positive interactions (eg, eye contact, smiling) *Gotlib & Whiffen, ‘89; Rehman et al., 2008*
    - ↑ verbal aggression, blame *Rehman et al., 2008*
  - Parenting difficulties
    - ↑ criticism, guilt-assigning statements, coercive and hostile behaviors *Hamilton et al., 1993; Lovejoy et al., 2000*
    - ↓ praise, support, constructive suggestions *Ewell Foster et al., 2008*
Familial Aggregation of Mood Disorders -- Environmental Factors

- **Risk factors assoc w/ parental bipolar disorder (BD):**
  - Limited research *Du Rocher Schudlich et al., 2008*
  - Available research indicates poorer family functioning
    - **↓** cohesion, organization, independence, achievement orientation
      *Chang et al., 2001; Romero et al., 2005*
    - **↑** conflict, control *Chang et al., 2001*
  - Not clear whether impact of parental BD differs from that of parental depression *Du Rocher Schudlich et al., 2008*
Family Dysfunction and Childhood Mood Disorders—Interactional Perspective

- Limited longitudinal research has limited conclusions *Schenkel et al., 2008*

- Available evidence mixed *Du Rocher Schudlich et al., 2008; Hammen et al., 1991*

- Bidirectional relationship seems probable *Berg-Nielsen et al., 2002; Schenkel et al., 2008*
Goals

1. Review familial patterns of mood disorders
2. *Describe impact of parental mood disorders on treatment of children with mood disorders*
3. Describe impact of intervention for childhood mood disorders on parents
Impact of Parental Psychopathology on Child Treatment Outcome

- Little research to date has examined the association between parental mood dysfunction and treatment outcome for childhood mood disorders.
  - Handful of studies regarding association with treatment outcome for childhood depression.
  - No known studies regarding pediatric BD.
Impact of Parental Psychopathology on Treatment Outcome in Adolescent Depression

- Brent et al. (1998), JAACAP, 37(9), 906-914

  - 107 adolescent outpatients (ages 13-18) with MDD diagnoses, BDI scores ≥ 13
  - Assigned to 1 of 3 treatment groups, 12-16 weekly sessions:
    - Cognitive-behavioral therapy (CBT)
    - Systemic-behavioral family therapy (SBFT)
    - Nondirective supportive therapy (NST)
  - CBT more effective than SBFT and NST regardless of maternal depressive symptoms; CBT lost some effectiveness, however, when maternal BDI ≥ 9
Impact of Parental Psychopathology on Treatment Outcome in Adolescent Depression

- Curry et al. (2006)—Treatment of Adolescent Depression Study (TADS), JAACAP, 45(12), 1427-39
  - 439 adolescents (ages 12-17) with MDD diagnoses
    - Assigned to 4 acute 12-week tx groups:
      - Pharmacotherapy (fluoxetine)
      - CBT
      - Fluoxetine plus CBT
      - Pill placebo
    - Contrary to hypotheses, presence of depressive symptoms in primary caregiver did not moderate treatment outcome.
Impact of Parental Psychopathology on Treatment Outcome in Youth Depression

- Kennard et al. (2008), JAACAP, 47(6), 694-699
  - 146 youth, ages 7-18, with MDD diagnoses for ≥ 4 wks and at least moderate severity ratings
    - 12 weeks open-label tx with fluoxetine
    - Level of baseline maternal depressive symptoms did not impact youth rate of improvement
    - Children whose mothers had depressive symptoms started and ended tx with levels of depressive sx
    - Children whose mothers’ depressive sx had not improved by end of tx had remission rate (48%) than children whose mothers had improved (84%)
Impact of Parental Psychopathology on Child Tx Outcome—Behavioral Disorders

- Parental depression associated with ↓ child response to:
  - Parent-training invention for oppositional and aggressive child behavior *Webster-Stratton, 1990, 1996*
  - Medication treatment for ADHD *Hinshaw, 2007; Owens et al., 2003*

- Parental externalizing behaviors (e.g., antisocial behavior, ADHD sx) associated with ↓ child response to:
  - Problem-solving skills training for aggressive and oppositional child behavior *Kazdin & Crowley, 1997*
  - Parent-training program for parents of children with ADHD *Sonuga-Barke et al., 2002*

- History of parental substance abuse associated with ↑ child response to Incredible Years program for conduct disorder and ODD *Beuchaine et al., 2005*
Impact of Parental Psychopathology on Child Tx Outcome—Anxiety Disorders

- Parental depression assoc w/ ➣ child response to:
  - CBT and exposure-based interventions  *Berman et al., 2000; Southam-Gerow, 2001*

- Parental anxiety assoc w/ ➣ child response to:
  - Behavioral treatment, including desensitization, relaxation and self-coping  *Windheuser, 1977*
  - CBT  *Cobham et al., 1998; Creswell et al., 2008*
Improvement in Child Symptoms Following Parent Treatment

- Weissman et al. (2006), JAMA, 295, 1389-1398
  - 151 women with MDD diagnoses and their children
  - Mothers received 3 months of antidepressants
  - ↓ rate of overall child diagnoses in mothers whose MDD remitted
  - ↑ rate of overall child diagnoses in mothers whose MDD did not remit
  - Significant linear relationship between magnitude of maternal response to treatment and change in rates of child diagnoses and symptoms
Improvement in Child Symptoms Following Parent Treatment

- Byrne et al. (2006), JAACAP, 45, 239-246
  - Study of parents receiving pharmacological treatment for dysthymia
  - Children of treatment responders showed greater improvement at 2-year follow-up than children of nonresponders

- No studies regarding child improvement following treatment of parental bipolar disorder
Goals

1. Review familial patterns of mood disorders
2. Describe impact of parental mood disorders on treatment of children with mood disorders
3. Describe impact of intervention for childhood mood disorders on parents
Improvement in Parent Symptoms Following Child Treatment

- Kennard et al. (2008), JAACAP, 47(6), 694-699
  - Antidepressant treatment study for youth w/ MDD
  - Mothers reported ↓ in their own depressive symptoms following children’s antidepressant treatment, despite no direct treatment for mothers
Summary

- Mood disorders are familial—genetic and environmental roles
- Studies are limited but...
  - If parents are depressed, children may be less likely to benefit from treatment (++/-)
  - If mothers receive treatment for depression, children benefit
  - If children receive treatment for depression, mothers benefit
- We know little about the impact of bipolar disorder on outcomes
Current Study

- Treatment Moderators--“Whom” treatment works for and under what circumstances *Baron & Kenny* ‘86
  - Parental psychopathology
    - Presence of mood diagnosis
    - Depressive symptoms
    - Manic symptoms
  - Treatment Mediators--“How” treatment works *Baron & Kenny*, 1986
    - Change in parental mood symptoms
  - Focus on depression and bipolar disorder
MF-PEP Study Participants

- 165 families enrolled
  - 78 assigned to immediate treatment (IMM)
  - 87 assigned to wait-list control (WLC)
- Family = child, primary caregiver, secondary caregiver (if available)
- Families divided into 11 groups of 15 families each, then randomized to either IMM or 12-month WLC
- All families received treatment as usual (TAU) throughout study
**Study Design**

- **Families assessed at:**
  - baseline (T1), 6 mo (T2), 12 mo (T3), 18 mo (T4)

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
<th>Time 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Sample</strong></td>
<td>N = 165</td>
<td>N = 144</td>
<td>N = 122</td>
<td>N = 109</td>
</tr>
<tr>
<td><strong>IMM</strong></td>
<td>Study intake/Pre-tx n = 78</td>
<td>Follow-up/Post-tx n = 70</td>
<td>Follow-up n = 61</td>
<td>Follow-up n = 56</td>
</tr>
<tr>
<td><strong>WLC</strong></td>
<td>Study intake n = 87</td>
<td>Follow-up n = 74</td>
<td>Follow-up/Pre-tx n = 61</td>
<td>Follow-up/Post-tx n = 53</td>
</tr>
</tbody>
</table>
Study Participants--Children

- Age: 8-11 (M±SD=9.9±1.3)
- Race: 90.9% White, 6.7% Black, 1.8% Mixed, 0.6% Hispanic
- Sex: 73.3% male
- IQ (K-BIT): range 71-148 (M±SD=106.9±14.9)
- Mood diagnoses: 70% Bipolar, 30% Depressive
- ≥ 1 comorbid behavioral diagnosis, 97%
- ≥ 1 comorbid anxiety diagnosis, 69%
Study Participants - Parents

- Age: 26-71 (M±SD=40.8±7.8)
- Family type:
  - Married biological parents, 46%
  - Step family, 20%
  - Single biological parent, 19%
  - Other (eg, relative-legal guardian), 11%
  - Married adoptive parents, 6%
  - Single adoptive parent, 1%
- Annual income:
  Median, $40-59k, range: <$20,000 to >$100,000
Child Measures

- Children’s Interview for Psychiatric Syndromes-Child & Parent Forms (ChIPS/P-ChIPS) *Weller, Weller, Rooney, & Fristad, 1999*
- Kaufman Brief Intelligence Test (K-BIT) *Kaufman & Kaufman, 1990*
- Children’s Depression Rating Scale-Revised (CDRS-R) *Poznanski et al., 1984*
- Young Mania Rating Scale (YMRS) *Young et al., 1978*
- Mood Severity Index (MSI)-combines the CDRS-R & YMRS
- Children’s Global Assessment Scale (CGAS) *Shaffer et al., 1983*
Caregiver Measures

- **Hamilton Rating Scale for Depression–24 Item (HRSD-24)**
  Hamilton, 1967

- **Young Mania Rating Scale (YMRS)**
  Young et al., 1978

- **Caregiver Mood Severity Index (CMSI) - combines the HRSD-24 and YMRS**

- **Psychiatric Diagnostic Interview (PDI)**
  Othmer et al., 1981
## Parental Diagnoses

<table>
<thead>
<tr>
<th>Primary Caregiver Baseline Mood Status</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not present</td>
<td>47.3%</td>
<td>51.3%</td>
<td>43.7%</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>30.3%</td>
<td>30.8%</td>
<td>29.9%</td>
</tr>
<tr>
<td>Depressive diagnosis</td>
<td>18.2%</td>
<td>15.4%</td>
<td>20.7%</td>
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</table>

<table>
<thead>
<tr>
<th>Primary Caregiver Baseline Bipolar Status</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not present</td>
<td>84.2%</td>
<td>84.6%</td>
<td>83.9%</td>
</tr>
<tr>
<td>Bipolar symptoms</td>
<td>10.9%</td>
<td>11.5%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Bipolar diagnosis</td>
<td>3.6%</td>
<td>2.6%</td>
<td>4.6%</td>
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</table>

<table>
<thead>
<tr>
<th>Primary Caregiver with Baseline Mood Diagnosis</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.8%</td>
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<table>
<thead>
<tr>
<th>Primary Caregiver Lifetime Mood Status</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not present</td>
<td>20.0%</td>
<td>21.8%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>8.2%</td>
<td>21.8%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Depressive diagnosis</td>
<td>51.5%</td>
<td>50.0%</td>
<td>52.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary Caregiver Lifetime Bipolar Status</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not present</td>
<td>79.4%</td>
<td>80.8%</td>
<td>78.2%</td>
</tr>
<tr>
<td>Bipolar symptoms</td>
<td>7.9%</td>
<td>9.0%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Bipolar diagnosis</td>
<td>11.5%</td>
<td>9.0%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary Caregiver with Lifetime Mood Diagnosis</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.0%</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
## Parental Mood Symptom Severity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall (n = 165)</th>
<th>IMM (n = 78)</th>
<th>WLC (n = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HRSD: mean (SD)</strong></td>
<td>8.06 (7.54)</td>
<td>6.96 (6.45)</td>
<td>9.02 (8.31)</td>
</tr>
<tr>
<td><strong>YMRS: mean (SD)</strong></td>
<td>3.87 (5.82)</td>
<td>3.70 (5.45)</td>
<td>4.01 (6.16)</td>
</tr>
<tr>
<td><strong>CMSI: mean (SD)</strong></td>
<td>7.58 (7.97)</td>
<td>6.94 (7.33)</td>
<td>8.15 (8.50)</td>
</tr>
</tbody>
</table>

### Baseline primary caregiver mood diagnostic status

<table>
<thead>
<tr>
<th></th>
<th>Bipolar Diagnosis</th>
<th>Depressive Diagnosis</th>
<th>Either Diagnosis</th>
<th>No Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n = 6</strong></td>
<td>n = 30</td>
<td>n = 36</td>
<td>n = 127</td>
<td></td>
</tr>
<tr>
<td><strong>HRSD: M (SD)</strong></td>
<td>18.17 (9.56)a</td>
<td>13.30 (9.20)b</td>
<td>14.11 (9.30)c</td>
<td>6.33 (5.96)abc</td>
</tr>
<tr>
<td><strong>YMRS: M (SD)</strong></td>
<td>9.83 (9.66)d</td>
<td>4.87 (5.50)</td>
<td>5.69 (6.48)e</td>
<td>3.35 (5.54)de</td>
</tr>
<tr>
<td><strong>CMSI: M (SD)</strong></td>
<td>18.16 (10.09)a</td>
<td>10.96 (8.05)b</td>
<td>12.16 (8.69)c</td>
<td>6.27 (7.27)abc</td>
</tr>
</tbody>
</table>
Treatment – MF-PEP

- 8 weekly, 90-minute sessions
- Children and parents meet together at beginning of session to review the week and their project
- Break into parent and child groups for bulk of session
- Final 15-20 minutes of child group spent on *in-vivo* social skills training
- Session ends with parents and children meeting together again to review the child session content and the weekly project
<table>
<thead>
<tr>
<th>Session</th>
<th>Child Group</th>
<th>Parent Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disorders and symptoms</td>
<td>Disorders and symptoms</td>
</tr>
<tr>
<td>2</td>
<td>Medication</td>
<td>Medication</td>
</tr>
<tr>
<td>3</td>
<td>Emotion regulation skills: building a “Tool Kit”</td>
<td>Systems of care: school and mental health</td>
</tr>
<tr>
<td>4</td>
<td>The relationship between thoughts, feelings and actions; responsibility and choices</td>
<td>Negative family interaction cycles; strategies to alter these cycles</td>
</tr>
<tr>
<td>5</td>
<td>Improving problem solving</td>
<td>Improving problem-solving</td>
</tr>
<tr>
<td>6</td>
<td>Improving nonverbal communication</td>
<td>Improving communication</td>
</tr>
<tr>
<td>7</td>
<td>Improving verbal communication</td>
<td>Improving symptom management</td>
</tr>
<tr>
<td>8</td>
<td>Review of MF-PEP; graduation</td>
<td>Final Q &amp; A; graduation</td>
</tr>
</tbody>
</table>
Mood Severity Index
MF-PEP Intent-to-Treat Analyses
Fristad et al, 2009, Arch Gen Psychiatr

- N=165
  - n=78 Immediate
  - n=87 Wait List
- Linear Mixed Effects Modeling
  - $X^2=4.12$, $p<.05$
  - Slope difference = -2.61/6 mos
- Pre-Post Imm=WLC
Mood Severity Index
MF-PEP Treated Sample
*Fristad et al, 2009, Arch Gen Psychiatr*

- **N=129**
  - n=77 Immediate
  - n=52 Wait List
- **Linear Mixed Effects Modeling**
  - $X^2 = 4.79, p < .03$
  - Slope difference = -2.97/6 mos
- **Pre-Post Imm=WLC**
Hypothesis 1-Relationship between Parent & Child Baseline Functioning

*All hypotheses were tested twice—first, including all children, second, including only those children whose primary caregivers were their biological parents. All analyses were two-tailed.

At T1, primary caregivers’ overall mood symptoms (CMSI) will be:

a. + correlated with overall child mood symptoms (MSI)

b. - correlated with child global functioning (CGAS)

<table>
<thead>
<tr>
<th>Caregiver Category-CMSI</th>
<th>MSI</th>
<th>C-GAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Primary Caregivers</td>
<td>.236a</td>
<td>-.218a</td>
</tr>
<tr>
<td>Biological Parent only</td>
<td>.242a</td>
<td>-.225a</td>
</tr>
</tbody>
</table>

*p<.01, Pearson correlation
At T1, presence of a current mood disorder in the primary caregiver will be associated with poorer child functioning.

<table>
<thead>
<tr>
<th>Child variable: (M±SD)</th>
<th>Present</th>
<th>Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDRS-R</td>
<td>45.75 (13.84)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>38.49 (13.09)&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>YMRS</td>
<td>20.14 (10.12)</td>
<td>20.71 (10.90)</td>
</tr>
<tr>
<td>MSI</td>
<td>35.29 (14.83)</td>
<td>30.93 (14.72)</td>
</tr>
<tr>
<td>CGAS</td>
<td>40.97 (9.63)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>44.51 (7.91)&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>p=.004; <sup>b</sup>p=.025, MANOVA; Results comparable for biological parents (C-GAS-same direction of findings, no longer significant)
Hypothesis 2-Parental Diagnoses & Children’s Baseline Functioning

At T1, presence of a lifetime mood disorder in the primary caregiver will be associated with poorer child functioning.

<table>
<thead>
<tr>
<th>Child variable: (M±SD)</th>
<th>LIFETIME mood dx in primary caregiver (63%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>CDRS-R</td>
<td>42.34 (14.12)a</td>
</tr>
<tr>
<td>YMRS</td>
<td>20.90 (10.38)</td>
</tr>
<tr>
<td>MSI</td>
<td>33.67 (15.01)b</td>
</tr>
<tr>
<td>CGAS</td>
<td>43.63 (8.32)</td>
</tr>
</tbody>
</table>

*p=.005; *p=.042, MANOVA; Results comparable for biological parents (MSI-trend, no longer significant)
Hypothesis 3-Impact of Parental Depressive Symptom Severity

Greater primary caregiver depressive symptoms (HRSD-24) at T1 will be associated with slower rates of improvement in child functioning, as measured by:

a. Depressive symptoms (CDRS-R)

b. Manic symptoms (YMRS)

c. Overall mood symptoms (MSI)

d. Global functioning (CGAS)

Contrary to expectation, there was no significant association between a higher level of depressive symptoms in primary caregivers (all caregivers, biological parents) at study intake, participation in MF-PEP, and improvement in the child (LME analyses)
Hypothesis 4—Impact of Parental Manic Symptom Severity

Greater primary caregiver manic symptoms (caregiver YMRS) at T1 will be associated with slower rates of improvement in child functioning, as measured by:

a. Depressive symptoms (CDRS-R)
b. Manic symptoms (YMRS)
c. Overall mood symptoms (MSI)
d. Global functioning (CGAS)

Contrary to expectation, there was no significant relationship between a higher level of manic symptoms in caregivers (all, biological parents) at study intake, participation in MF-PEP, and improvement in the child over time (LME analyses)
Hypothesis 5-Impact of Parental Overall Mood Symptom Severity

Greater overall primary caregiver mood symptoms (CMSI) at T1 will be associated with slower rates of improvement in child functioning, as measured by:

a. Depressive symptoms (CDRS-R)
b. Manic symptoms (YMRS)
c. Overall mood symptoms (MSI)
d. Global functioning (CGAS)

Contrary to expectation, there was no significant relationship between a higher level of overall mood symptoms in the primary caretaker (all, biological parents) at study intake, participation in MF-PEP, and improvement in the child (LME analyses)
Hypothesis 6—Impact of Parental Mood Diagnosis

The presence of a primary caregiver mood diagnosis (either depressive or bipolar) at T1 will be associated with slower rates of improvement in child functioning, as measured by:

a. Depressive symptoms (CDRS-R)
b. Manic symptoms (YMRS)
c. Overall mood symptoms (MSI)
d. Global functioning (CGAS)

Contrary to expectation, there was no significant relationship between the presence of a primary caregiver (all, biological parents) mood diagnosis at study intake, participation in MF-PEP, and improvement in over time (LME analyses)
Hypothesis 7 - Impact of MF-PEP on Parental Outcomes

Participation in MF-PEP will lead to ↓ caregiver mood symptoms (CMSI) from pre- to post-treatment *Analysis was conducted initially using the entire sample, then for primary caregivers with T1 mood diagnoses.

Lifetime dx— no impact; Current dx—results below (same for bio parents)

**ALL PARENTS**

**PARENTS W/ MOOD DX**

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMM</td>
<td>WLC</td>
</tr>
<tr>
<td>IMM</td>
<td>WLC</td>
</tr>
</tbody>
</table>

Analysis was conducted initially using the entire sample, then for primary caregivers with T1 mood diagnoses.

Lifetime dx— no impact; Current dx—results below (same for bio parents)
Summary-Familial Pattern of Mood Disorders

- Familial pattern of mood symptoms replicated
  - Parental mood symptom severity correlated with:
    - Child mood symptom severity
    - Child global functioning
  - Parents with a current mood disorder had children with:
    - Greater severity of depressive symptoms
    - Lower global functioning
  - Parents with a history of mood disorder had children with:
    - Greater severity of depressive symptoms
    - Greater overall mood severity
Summary-Impact of Parental Psychopathology on Child Outcome

- NO impact of parental depressive, manic or overall symptom severity or presence/absence of diagnosis on child outcome

- Why? Possibly because intervention also provided support for parents
Clinical Implications

- MF-PEP appears to work equally well for children regardless of parental mood diagnosis.

- Parents frequently have mood disorders that likely require their own treatment (i.e., child therapists be prepared to refer).